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10/567,604	02/08/2006	Yoon Gun Back	HII0266	2048
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KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			YABUT, DANIEL D	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,604	Applicant(s) BAEK, YOON GUN
	Examiner DANIEL YABUT	Art Unit 3656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 04 January 2010.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-4,6,8,9,11-16 and 18-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-4,6,8,9,11-16 and 18-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/06)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application

6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-4, 6, 8, 9, 11-16, and 18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Passman, U.S. Patent 2,879,673 in view of Bauer et al., U.S. Patent 4,656,926.

Passman discloses a manipulation device (Fig. 1) comprising a(n):

Re claim 1

- Control panel (31)
- Dial knob (33) mounted on the control panel, the dial knob including a coupling shaft (28) formed at a center portion thereof and having a predetermined length (at 28)
- Output adjusting gear (at 25) coupled with the dial knob
- Guide rib (at 36)

However, as to **claim 1**, Passman does **not** expressly disclose a plurality of guide ribs formed on an outer surface of the coupling shaft.

Bauer et al. teaches the use of guide ribs (48) formed on an outer surface of a coupling shaft (71) for the purpose of providing a secure connection between the knob (4) and output adjusting gear (7).

Regarding **claim 1**, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a plurality of guide ribs formed on the outer surface of the

coupling shaft of Passman, as taught by Bauer et al., for the purpose of providing a secure connection between the knob and output adjusting gear.

Passman as modified above further discloses the following:

- Coupling member (near 19, 16, 23) configured to be inserted at an end of the coupling shaft through the output adjusting gear so as to fix the output adjusting gear to the dial knob (Fig. 1)
- At least one of the plurality of guide ribs penetrates through the output adjusting gear (see portion of 48 penetrating through output adjusting gear in Bauer et al.) and at least one other of the plurality of guide ribs is positioned spaced apart from the output adjusting gear (at 36)

As to **claim 2**, Passman as modified above does **not** expressly disclose the control panel comprising a recessed portion on which the dial knob is mounted.

Bauer et al. teaches the use of a control panel (2) comprising a recessed portion (47) on which the dial knob is mounted for the purpose of providing a space where a stop projection protrudes to restrict movement of the dial knob within a predetermined range (C4 / L89-12).

Regarding **claim 2**, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the control panel comprising a recessed portion on which the dial knob is mounted, as taught by Bauer et al., in the device of Passman for the purpose of providing a space where a stop projection protrudes to restrict movement of the dial knob within a predetermined range.

Passman as modified above further discloses the following:

Re claim 3

- Control panel comprises a knob hole (32) at a predetermined location into which the dial knob is inserted (Fig. 2).

Re claim 4

- Control panel further comprises a stop projection (65; Bauer et al.) protruded that protrudes from a circumference of the knob hole toward a center of the knob hole to restrict a movement of the dial knob within a predetermined range.

Re claim 6

- Coupling shaft comprises a hole at a leading end (near 28; Fig 2) having a predetermined depth that receives the coupling member.

Re claim 8

- At least one of the plurality of guide ribs comprises a reinforcement rib formed at one side thereof having a predetermined width and length (see portion at numeral 48 in Fig. 6 in Bauer et al.)

Re claim 9

- Dial knob (33)
- Coupling shaft (28) that extends from a center portion of the dial knob with a predetermined length
- Plurality of guide ribs (48; Bauer et al.) formed on an outer surface of the coupling shaft
- Output adjusting gear (at 25) having a shaft hole (Fig. 2) into which the coupling shaft is inserted
- Control panel (31) into which the dial knob is rotatably inserted

- Coupling member (near 19, 16, 23) configured to be inserted into the coupling shaft through the output adjusting gear to fix the output adjusting gear to the dial knob so that the output adjusting gear integrally rotates with the dial knob (C1 / L60-67; C2 / L15-17), wherein at least one of the plurality of guide ribs penetrates through the output adjusting gear and at least one other of the plurality of guide ribs is positioned spaced apart from the output adjusting gear.

Re claim 11

- Output adjusting gear further comprises a guide surface (near 29) that prevents an engaged gear from separating from the output adjusting gear.

Re claim 12

- Output adjusting gear further comprises a guide surface (near 29) and gear teeth (25) on a back thereof, wherein an outer diameter of the guide surface is larger than an outer diameter of the gear teeth of the output adjusting gear (Fig. 2)

Re claim 13

- Coupling member is a screw, an outer surface of which outer surface is threaded (C1 / L55-58).

Re claim 14

- Output adjusting gear further comprises a gear sleeve (at 24; Fig. 1) formed at a back thereof and having a predetermined diameter and height.

Re claim 15

- Control panel comprises a mounting surface on one side of which the dial knob is mounted (at 31; Fig. 2)

- Receiving sleeve formed on the other side thereof and having a predetermined diameter and height that receives the output adjusting gear (at 24; Fig. 2)

Re claim 16

- Output adjusting gear further comprises at least one slot (near 28 in Fig. 2) that extends radially from a circumference of the shaft hole having a predetermined length and width.

Re claim 18

- Dial knob (33) including a coupling shaft (28) and a plurality of guide ribs (36; 48 in Bauer et al.)
- Output adjusting gear (at 25) coupled to the dial knob that transmits a rotation motion of the dial knob.
- Output adjusting gear including a shaft hole (near 28; Fig. 2)
- Control panel (31) having a knob hole (32) into which the dial knob is rotatably inserted and a stop projection (65; Bauer) that extends from a circumference of the knob hole toward a center of the knob hole
- Coupling member (near 19, 16, 23) configured to be inserted into the coupling shaft through the shaft hole of the output adjusting gear, such that the dial knob is coupled to the output adjusting gear (Fig. 2)
- At least one of the plurality of guide ribs penetrates through the output adjusting gear (48; Bauer et al.) and at least one other of the plurality of guide ribs is positioned spaced apart from the output adjusting gear (36)

Re claim 19

- Rotational range of the dial knob inserted into the knob hole is determined by a width of the stop projection (C4 / L89-12; Bauer et al.)

Re claim 20

- Output adjusting gear further comprises a guide surface (near 29) on a side to prevent thereof that prevents an engaged gear from separating from the output adjusting gear.

Response to Arguments

Applicant's arguments with respect to claims 1-4, 6, 8, 9, 11-16, and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL YABUT whose telephone number is (571)270-5526. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard W. Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL YABUT/
Examiner, Art Unit 3656
3/13/2010

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656